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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/016,853	12/14/2001	Janette Lin	P14738-PUCN	7417

7590 07/14/2004  
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EXAMINER

FITZGERALD, KAHLIL G

ART UNIT	PAPER NUMBER
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2681

DATE MAILED: 07/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/016,853

Applicant(s)

LIN ET AL.

Examiner

Kahlil G Fitzgerald

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 14 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                                    | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 5, 9, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salin, US Patent #5400390, (hereinafter Salin) in view of Mouly et al., The GSM System for Mobile Communications, 1992, Chapter 7.2 "Security Management," pp 477-492 (hereinafter Mouly).

Regarding claims 1, 5 9, and 13, Salin teaches a method of establishing an incoming call in a wireless telecommunications system, and the components thereof comprising:

receiving a call request for a mobile terminal at a Gateway Mobile Switching Center (GMSC) (column 4: lines 64-66);

sending a request for routing information from said GMSC to a Home Location Register (HLR) associated with said mobile terminal (column 4:line 68 to column 5: line 1);

sending a request for a roaming number from said HLR to a Mobile Switching Center (MSC) associated with the roaming area in which said mobile terminal is geographically located (column 5: lines 4-8);

allocating a roaming number for said mobile terminal (column 5: line 11);

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sending a response to said request for roaming number from said MSC to said HLR, said response including said roaming number;

receiving said roaming number at said HLR (column 5: lines 12-13);

sending said roaming number from said HLR to said GMSC (column 5: lines 13-15);

sending a call setup request from said GMSC to said MSC, said call setup request including said roaming number (column 5: lines 16-21);

Salin does not disclose expressly transmitting an authentication code along with the roaming number between the HLR, GMSC and MSC, in completing call setup. However the procedure of authenticating an incoming call is well known in the art via the GSM specification as mentioned by Salin (column 5: lines 23-27), and disclosed by Mouly.

Mouly discloses authentication in a telecommunications network during call setup including sending an authentication request from the MSC to the mobile station, and sending an authentication response from the mobile station (page 488: "The MS-MSC Procedure"). In the telecommunications system as proposed in the instant application, said authentication request would pass from MSC to HLR to GMSC, and the call setup would be completed if said authentication response was appropriate.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the call setup procedure of Salin with authentication process of Mouly to obtain a wireless telecommunications system as proposed in the instant application in order to protect the network against unauthorized access, and to protect the privacy of users, as suggested by Mouly (page 477: paragraph 4).

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3. Claims 2-4, 6-8, 10-12, and 14-16 rejected under 35 U.S.C. 103(a) as being unpatentable over Salin and Mouly as applied to claims 1, 5, 9, and 13 above, and further in view of Grootwassink, US Patent #6725037 (hereinafter Grootwassink).

Salin and Mouly do not disclose expressly an authentication code as a function of roaming number, the time at which said roaming number is requested, or the date on which said roaming number is requested. However an authentication procedure using such subscriber information is taught by Grootwassink.

Grootwassink teaches the use of various validation data during authentication including the user's mobile phone number, and user profile data (column 5: lines 1-5). Although Grootwassink does not expressly mention date and time, it is obvious that these items are a part of user profile data, as they are necessary in the billing of any mobile phone call.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine call setup and authentication procedure of Salin and Mouly with the validation data of Grootwassink to allow a particular user to access a communications network, as suggested by Grootwassink (column 4:lines 65-67).

### *Conclusion*

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Offer, US Patent #6745023;

Daniels, US Patent #6285871; and

Lu, US Patent #6640108.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kahlil G Fitzgerald whose telephone number is (703) 308-0123. The examiner can normally be reached on M-Th 8:30-7PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Erika Gary can be reached on (703) 308-0123. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JEAN GELIN  
PATENT EXAMINER

*Jean Allard Gelin*

  
Kahlil G Fitzgerald  
Examiner  
Art Unit 2681

7/7/04